MEETING MINUTES SUMMARY

United States Department of Agriculture (USDA)
Agricultural Air Quality Task Force Meeting (AAQTF)
Wyndham Bristol Hotel
Washington, DC
March 5, 1997

Introduction

Dan Glickman, United States Department of Agriculture (USDA) Secretary, announced the first meeting of the Agricultural Air Quality Task Force (AAQTF) on March 5-6, 1997. Secretary Glickman announced that Natural Resources Conservation Service (NRCS) Chief Paul Johnson would chair the two-day meeting which would take place from 9:00 a.m. to 5:00 p.m. both days, at the Wyndham Bristol Hotel, 2430 Pennsylvania Avenue, NW, Washington, DC. The purpose of the Task Force meeting would be to establish operating procedures, outline objectives, and discuss other pertinent air quality issues. The Secretary indicated that the meeting would be open to the public and at the discretion of the Chair, there would be opportunity for public presentations.

Opening Remarks/Welcome - Paul Johnson, Natural Resources Conservation Service (NRCS), Chairman of the USDA AAQTF by statue

Chief Johnson stated that the AAQTF was initiated to look at air quality issues, as they relate to the agricultural community. He indicated that it has been a long, tedious process to get everyone to the table this morning and that George Bluhm has worked very hard to ensure that this meeting occurred and everything would run smoothly. Chief Johnson acknowledged that it would have been better to start this process 2-3 months ago; but, he reminded the attendees that everything works slow in Washington. He stated that he looked forward to the time together over the next two days and hoped that the discussions would be very fruitful.

Chief Johnson stressed the need to educate the American public on understanding the value of private lands and how air quality issues affect these lands. Conservation and environmental protection does occur within the Department of Agriculture. The American public should know that most of the land in this country is in private ownership, ie. farmers, ranchers, etc. Thus, from the standpoint of environmental health, it is these private landowners that we must involve in order to deal with today's complex environmental issues. Chief Johnson said that we have come together this week to discuss air quality issues as they relate to public and private lands. Members of the Task Force were selected because they are deemed to be experts in their respective field(s). <u>He cautioned the attendees that USDA was not asking the Task Force members to be advocates for any specific cause, only to share their expertise and ideas with the group.</u>

Chief Johnson concluded his opening remarks by stating that he would be moving in and out of the meeting over the next two days and that Gary Margheim (acting Deputy Chief for Science and Technology) would be substituting as the session chair in his absence.

Mr. Eric Scherer (USDA, Meeting Facilitator) asked for introductions from the Task Force members and requested each member to address the following four questions in their responses: (1) What organization(s) do you represent; (2) What biases do you bring with you?; (3) What skills/experiences do you bring?; and, (4) What are your personal expectations/goals for the Task Force?

Agricultural Air Quality Task Force Members

Dr. Robert Quinn
Professor of Geography
Certified Consulting Meteorologist (CCM)
Eastern Washington University
Cheney, WA

Dr. Quinn indicated that he had a background in soil science and hydrological processes. He said that he is involved with the smoke management program for the Intermountain Grass Growers Association and has expertise in both air and water quality.

Mr. William Hambleton
Agricultural Advisor
San Joaquin Valley Unified Air Pollution Control District
Fresno, CA

Mr. Hambleton is retired from the University of California system where he was involved in production agriculture, agricultural research, and university administration for 30 years. In his current capacity, he is employed by the San Joaquin Air Pollution Control District. He indicated that his interests had obviously changed, but not his biases! Mr. Hambleton encouraged the Task Force to consider that agriculture is finally being brought into the realm of air quality control measures and that the group needs to look at the costs and benefits of these issues. He advised the group to move slowly and make sure that science can underpin the solutions. He asked that group to visit Southern California, specifically the San Joaquin Valley (SJV) and see one of the greatest agricultural/farming areas in the nation.

Dr. John M. Sweeten
Professor and Resident Director, Texas Agricultural Experiment Station
Texas A&M University Research & Extension Center
Amarillo, TX
Dr. Sweeten stated that he was an Air Quality Engineer by training and has been on the faculty of the Agricultural Engineering Department of Texas A&M University, College Station, Texas for 24 years. He stated that he did not come to the table with any biases that he would readily admit to; however, he was certain that his colleagues would argue against that statement. Dr. Sweeten indicated that Texas is

subject to Conservation Reserve Program (CRP) land conversions (from grass to tilled land) and that the state was in danger of losing some of this erosive land. Dr. Sweeten said that he thought the country had too many single media programs, where each program either deals with air or water quality. He stated that there was a lack of multi-media programs in the agricultural environmental arena and that he was excited about the possibility of exploring these issue (and others), while learning of the contributions/solutions the AAQTF could make.

Mr. James K. Trotter
Farmer, Representing National Corn Growers Association
Macomb, IL

Mr. Trotter stated that he was a farmer and had taught at the High School level for many years. He indicated that he joined the Task Force to learn more about the current environmental issues and to represent the issues of other American farmers.

Mr. Dennis C. Tristao
Environmental Affairs Officer
J.G. Boswell Company
Corcoran, CA

Mr. Tristao indicated that in addition to his position at the J.G. Boswell Company, he was also a Conservation District Representative. He state that air quality had taken a major step forward over the last 10 year; however, the country is currently under-invested in research dollars in the field of agricultural air quality. Mr. Tristao encouraged the Task Force to develop scientific policies to support solutions for agricultural air quality problems. He offered that we are in an environment where perception is often taken as reality. He stated that the stakeholders must be involved in any solution-making process. Mr. Tristao commended the NRCS for the excellent track record it maintained for including stakeholders in their decision making processes and indicated that this was his motivation for participating in the AAQTF.

Dr. Thomas J. Ferguson, M.D.
Director, Employee Health Services
Professor, School of Medicine
University of California-Davis
Davis, CA

Dr. Ferguson, stated that in addition to his medical credentials (e.g., Board Certifications in Occupational Medicine, Toxicology and Internal Medicine), he also has completed a Ph.D. in Environmental Health (emphasis in water quality). He also commented that in reviewing the list of Task Force members he noticed a lot of non-physician members, indicating to him that individuals not in the medical community also recognize the health-related effects of environmental pollution. He concluded that there appears to be a large interest in the health effects of particulates from both the

medical community and the non-medical communities. Dr. Ferguson closed by saying that he had been very involved in researching the respiratory health of rice farmers in Northern California.

Dr. Keith E. Saxton
Professor
Washington State University
Pullman, WA

Dr. Saxton said that he was a veteran of the USDA Agricultural Research Service (ARS) and brought the bias of "the old farm kid turned environmental engineer" approach to the Task Force. He stated that his current interests were focused on wind erosion and particulate emissions and indicated that this Task Force could make a difference all the way up to the Secretary level. However, Dr. Saxton reminded attendees that the Task Force must realize that air quality is currently a secondary topic with respect to environmental issues relative to water quality. He informed the group that the USDA was the representative for the agricultural industry, not the U.S. Environmental Protection Agency (EPA). Thus, USDA must recognize and acknowledge that agriculture is both a contributor to poor air quality as well as being impacted by adverse air quality. Dr. Saxton stated that the Task Force must first understand the science and educate ourselves on the pertinent issues related to air quality and agricultural practices prior to attempting to pass this information on to EPA.

Mr. Emmett W. Barker
Equipment Manufacturers Institute, President
Chicago, IL

Mr. Barker said that he grew up on a farm and that he had been involved with agricultural environmental issues for the better part of his life. He stated that he was initially involved with grain dust in elevators and the potential for explosions as a representative for the American Feed Manufacturers. Since coming to the Institute, he has become involved in evaluating the Clean Air Act (CAA) and the ability of EPA to regulate non-road engines. Mr. Barker stated that his one bias stemmed from the issue of vehicle emissions. He said that America has the tendency to allow political emotion to drive the agenda further than good science can support. Mr. Barker's anticipation for this Task Force would be to empower Chief Johnson to intervene in the political arena and mandate that good science be included in the rulemaking process. Mr. Barker encouraged USDA to thoroughly review all the consequences of the proposed rulemaking, prior to promulgation by EPA. He concluded that he was very interested to see where the Task Force concept would lead the Agency and America's agricultural community over the next two years.

Dr. Gary A. Margheim
Acting Deputy Chief of Science and Technology
Natural Resource Conservation Service
Washington, DC

Dr. Margheim indicated that he had spent the past 31 years in the NRCS and that he had an extensive background in air quality. He received a degree in Environmental Engineering from Colorado State University (CSU). Dr. Margheim stated that felt that voluntary approaches are more effective than regulatory processes and these are best handled at the local level. He also mentioned the NRCS SWAPA (Soil, Water, Air, Plants and Animals) program, which considers the human elements of environmental controls. Dr. Margheim said that through participation in the Task Force he hoped to provide the Secretary and the EPA Administrator some scientific basis for the upcoming rulemaking procedures.

Mr. Paul W. Johnson
Chief of Natural Resource Conservation Service (NRCS)
Washington, DC

Chief Johnson started by saying that when he first came to the agency the NRCS was known as the Soil Conservation Service (SCS). He indicated that he was born in California, educated at the University of Michigan (Forestry, Ecology, and Genetics) and was a dairy farmer in Northeast Iowa prior to accepting his current position. In terms of biases, Chief Johnson said that he had a son who suffered from asthma and through this experience he had come to realize that in agriculture, health issues are important, but often overlooked. He reminded the attendees that the Agency was on a long journey; it had taken a long time to get to where we are today. He stated that optimistically we have a long period remaining on this earth; however, we must look at the data and determine if we are indeed making progress on improving agricultural air quality. Chief Johnson said that he was immensely excited about the opportunities and challenges before agriculture and eluded to the new SWAPA program. He charged the group that it was now time to get serious about air quality and agricultural impacts.

Mr. George Bluhm
Natural Resource Conservation Service
University of California - Davis
Davis, CA

Mr. Bluhm stated that he was the Designated Federal Official for the AAQTF and that he had over 35 years of experience with NRCS. Mr. Bluhm indicated that he joined the NRCS because his father was a farmer and had worked in the Civilian Conservation Corps (CCC). His interest was fostered from a very young age. He also shared with the group that he was, as a child, an asthmatic and could vividly remember all of the nights that he could not go to sleep because he was gasping for air. Mr. Bluhm stated that he understood asthma and that he understood farming because he lived them. Mr. Bluhm stated that he held degrees in Agricultural Engineering, Forestry, and Atmospheric Science and, thus understood a good deal of the scientific issues before the agricultural community. He also realized very soon after joining NRCS that the stakeholders must be at the table and be there early to implement effective environmental policy. Mr. Bluhm stated that he was honored to be working with the Task

Force because he was certain the group had the necessary expertise; however he cautioned that the task ahead would not be easy.

Ms. Sally Shaver
Air Quality Strategies and Standards Division, Director
United States Environmental Protection Agency March 20, 1997
Research Triangle Park, NC

Ms. Shaver confessed that she was a "failed", farmer (ie. could not make a profit), from a small farm in Georgia. Ms. Shaver stated that she did have a bias toward the agricultural community and that she was very appreciative of the products that America's farmers provide for the world. She concurred with the earlier comments regarding a balance between environmental costs and regulation for agricultural issues. Ms. Shaver's background is in Environmental Engineering, with more than 20 years of experience with EPA, the last 7 years in the Office of Air Quality Planning and Standards (OAQPS). Ms. Shaver stated that her most recent experience was with the U.S. Forest Service on the Federal Wildlands Fire Policy. Additionally, EPA has issued a natural events policy in her tenure at OAQPS and the Agency is currently involved in the revision of the particulate matter (PM) and ozone ambient air quality standards through the Federal Advisory Committee Act (FACA) at EPA. Ms. Shaver concluded by saying that she anticipated learning a great deal from this group and hoped that each of the Task Force members could in turn learn something from EPA. She encouraged the Task Force members to seek innovative ways that EPA and the Task Force could work together to improve agricultural air quality.

Mr. Manuel Cunha
Nisei Farmers League, President
Fresno, CA

Mr. Cunha was born and raised on a farm which included dairy cattle, row crops and vegetables. During his career, Mr. Cunha taught at the Junior College and High School levels for over 13 years. Currently, he represents farmers from facilities that average approximately 60 acres and deal with over 250 different crops, most of which are very labor intensive. The group's annual volume is approximately $12B and thus, is not insignificant. Mr. Cunha stated that he was very proud of California agriculture and for that matter, the nation's agriculture. He said that the United States provides the world with the safest and highest quality foods produced anywhere in the world. However, Mr. Cunha insisted that research is very important to ensure the success of this effort. California has developed a PM-10 policy committee, which was really part of the ozone committee, which included both state, federal and stakeholder participants. California has pursued research in both ozone and PM in recent years. Currently, we are doing data collection, modeling and data analyses to continue gathering environmental information. California is now expanding the program to address PM-2.5 issues. Thus, Mr. Cunha offered, that the California agricultural industry has stepped to the plate and is providing good science for the solution of today's agricultural environmental issues. He

said that EPA Region IX has been a good partner in the efforts in California. Mr. Cunha used California as an example of a "working model" where industry, federal/state agencies and the general public are working together to resolve agricultural environmental issues.

Mr. Cunha stated the future of this Task Force is critical and he hoped that it would continue well past the planned 2-year period. He urged the group to adopt some form of command and control procedure to solve environmental agricultural issues. He warned that PM is the ozone of the 21st Century and that we really do not understand all of the key issues. He agreed that we need to control agricultural emissions but not totally at the expense of the agricultural community. Mr. Cunha concluded his remarks stating that we are all healthy today because of what we eat and the industry responsible for this is agriculture. He encouraged the Task Force to protect America's farm workers in their deliberations. Mr. Cunha offered to host the next meeting of the AAQTF in the San Joaquin Valley in order to show the group what California is doing and how effectively it is currently operating.

(***Note:*** Paul Johnson offered that this Task Force was assembled in large part because of the personal efforts of Manuel Cunha and he deserved applause for efforts.)

Dr. Phillip J. Wakelyn
Environmental Health and Safety, Manager
National Cotton Council
Washington, DC

Dr. Wakelyn indicated that he was a chemist by training and that he had taught in academia prior to joining the National Cotton Council 20 years ago. He informed the attendees that he had done a good deal of USDA-sponsored research in his career. Dr. Wakelyn challenged the Task Force to determine the relevant contribution of agriculture and agricultural practices to the current air quality problems prior to embarking on any additional research. He reminded the group that we currently have very little information on this cause and effect relationship at the present time. For example, he indicated that most agricultural debris is composed of crustal material and EPA is currently telling us that PM-2.5 is not made-up of very much crustal material. Thus, we need to do some basic research in this area. Dr. Wakelyn indicated that he was not putting down EPA because the Agency has excellent backgrounds in many areas; however, agriculture is not one of them. He stated that he would envision this Task Force providing some quality information to EPA on the issues related to agriculture and air quality issues. Dr. Wakelyn concluded by saying that before tremendous economic controls are put on agriculture, some basic research needs to be conducted.

Dr. Victor S. Chavez
Physician
Lubbock, TX

Dr. Chavez stated that he currently owns cattle and other farmland in Texas. He indicated that his interest in the AAQTF is with regard to health-related issues. Dr. Chavez said that he would like to see some changes that would improve overall air quality without devastating the farming community.

Mr. Jerold R. Masters
Arkansas Pork Producers Association, Executive Vice-President
Dover, AR

Mr. Masters started by saying that he had been a farmer all his life. He said that currently his group was doing an air quality project around swine facilities within Arkansas in conjunction with the NRCS to study odor and odor control issues. Mr. Masters stated that he was involved with both air and water quality issues in his current job. Mr. Masters indicated that he would like to see the agricultural community have a voluntary common-sense approach to environmental issues, which was based in sound science.

Dr. Calvin B. Parnell
Professor, Agricultural Engineering
Texas A&M University
College Station, TX

Dr. Parnell has been associated with air quality issues for the past 20 years, primarily in relation to cotton farming and ginning operations. He stated that he really did not have any biases and that agricultural engineers can have an impact on these issues. However, Dr. Parnell indicated that he does take exception to EPA using non-agricultural personnel for generating emission factors, etc. for the agricultural industry. He insisted that agricultural engineers must be included in such activities and that they can make a substantial difference in this process. Responding to Mr. Cunha's earlier remarks on California, Dr. Parnell stated that Texas A&M has the best agricultural engineering department in the country. Thus, if you want to go to California to observe what is working, then you had best come to Texas to see where it was all being designed. Dr. Parnell concluded that it had been his privilege to work with agricultural people all of his life on environmental issues and that these people were of the highest integrity and genuinely wanted to do what is right for the improvement of the environment. Thus, he charged the Task Force to identify the middle ground between industry and the environmental community, such that effective and cost-efficient environmental polices could be developed and implemented.

Mr. Eric G. Hurley
Central Wisconsin Windshed Partnership, Project Manager
Hancock, WI

Mr. Hurley stated that he was not an agricultural engineer but that he was an agricultural conservationist. He said that in his current position he was dealing with conserving agriculture and agricultural practices and that this was his motivation to participate in this Task Force. The Central

Wisconsin Windshed Partnership deals with all aspects of environmental issues (air, water, soil, etc.) and is currently heavily involved with the groups in Wisconsin which are dealing with wind erosion control. Mr. Hurley stated that he did come to the meeting today with biases. He believes very much in the concept of sustainable agriculture. Mr. Hurley is confident that America can produce high-quality food today and do so 100 years from now, with little environmental disbenefit. Environmental agriculture is not that painful or difficult. He stated that in Wisconsin, his group has found that the two can go hand in hand; however, we must deal with offsite agricultural environmental issues (e.g. dust in homes, health concerns, etc.). We must also recognize that air quality issues (e.g. dust) will sooner or later become water quality issues. Mr. Hurley acknowledged that the problems in Wisconsin are very different from those in Texas and California - in Wisconsin, the dust is an event-driven scenario, it is simply not an every day problem because we get a good deal more rain in Wisconsin. Mr. Hurley concluded that he is in favor of more stringent regulations, as long as it does not stifle innovation on the farm. Finally, he stated that he is very much in support of coalition building and indicated that this needs to be handled at the local level because that is where the implementation and the benefits will occur.

Ms. Phyllis I. Breeze
Planning and Grants Specialist
Colorado Department of Public Health
Denver, CO

Ms. Breeze said that she was an air quality planner and that unlike the other people in the room, she was not involved in research. She indicated that her job was to try and develop control measures to protect air quality in Colorado. Ms. Breeze indicated that her most notable bias was that she tended to look at things from more of a Western perspective. She also stated that she was a farmer and that the small town, small farm concept was important to her. Thus, Ms. Breeze suggested that the Task Force must be sensitive to the economic aspects of any environmental control program. In conclusion, she stated that she hoped to take a good look at the proposed standards and discuss the impacts on agriculture through the Task Force. Her goal from this Task Force is to take something back to Colorado that will be useful in her day to day job.

Task Force Members Unable to Attend March 5, 1997 Meeting

Dr. Clinton B. Reeder
Farmer, Economic Consultant
Pendleton, OR

Mr. J. Reid Smith
Farmer/Rancher
ST. John, WA

Dr. Joe Miller

Supervisory Plant Physiologist Research Leader
USDA/Agricultural Research Service
Raleigh, NC

Dr. Michael A. Veenhuizen
Livestock Engineering Solutions, Owner
Greenwood, IN

(* The group adjourned for a 15-minute coffee break ***)**

Eric Scherer asked if the members of the audience would please stand, state their name and affiliation for the record.

Public Attendees (who registered for the meeting)

Al Nugent
Midwest Research Institute

Pam Guffain
The Fertilizer Institute

Lewis Britt
National Cattlemans Association

Frank C. Thornton
Tennessee Valley Authority (TVA)

Mike Wade
California Farm Bureau Federation
University of California-Davis

John McClelland
USDA/ERS

Susan Keith
National Corn Growers

Thomas C. O'Connor
NGFA

Gary H. Baise
Baise and Miller, PC

Richard Siegel
No Affiliation Given

Mark A. Joenson
CONSAD

Will Steger
CONSAD

Jess Ruby
National Pork Producers Association

Dr. Robert Flocchini
Crocker Laboratory

Adam J. Sharp
No Affiliation Given

Peter Oppenheimer
Bryan Care, LLP

Deborah Atwood
National Pork Producers Council

Counsel - Equipment Manufacturers Institute

Eric Scherer recognized George Bluhm, Designated Federal Official for the AAQTF and asked him to begin his presentation.

Operational Procedures - George Bluhm

Background Information

Bluhm stated that the Agricultural Air Quality Task Force was convened under the FACA. Thus, he said that all meetings of the AAQTF will be open to the public and will be announced in advance in the **Federal Register**. However, he reminded the public audience that the purpose of the meetings are for the AAQTF to communicate and discuss pertinent information relevant to agriculture and air quality issues. The general public will be given the opportunity to speak at specified times during the meeting; however, the public will not be allowed to interrupt during the proceedings. Additionally, the general public may submit written material to the docket for inclusion with the AAQTF's material.

Bluhm also relayed comments from Agriculture Secretary Dan Glickman where he stated, "I'm very optimistic about what this Task Force can do in their role of effectively dealing with air quality issues as they relate to agriculture", and from NRCS Chief Paul Johnson who commented that we should be striving toward "a productive nation in harmony with the environment."

In covering the legal aspects of this process, Bluhm cited the Federal Agricultural Improvement and Reform Act of 1996 (FAIRA), specifically Section 391: Agricultural Air Quality Research Oversight. There are four major components of Section 391:

Congressional Findings

Various studies have alleged that agriculture is a source of PM-10;

Many of these studies have often been based on erroneous data;

USDA research activities are ongoing to determine the extent to which agricultural activities contribute to air pollution and to determine cost-effective ways in which the agricultural industry can reduce any pollution that exists; and,

Any Federal policy recommendations that may be issued by any Federal agency to address air pollution problems related to agriculture or any other industrial activity should be based on sound scientific findings that are subject to adequate peer review and should take into account economic feasibility.

Purpose of Section 391

To encourage the Secretary of Agriculture to continue to strengthen vital research efforts related to agricultural air quality.

Oversight Coordination

Intergovernmental cooperation
Correct data

Task Force

Establishment (started in April, 1995; triggered FACA as a result)
Composition- Farmers, Health advocates, Scientists, Agricultural industry representations
Duties

Mr. Bluhm indicated that a Charter for the AAQTF was required by the Department Regulation for the FACA and that this charter placed a cap on the amount of money that can be spent during the entire FACA process. He indicated that this dollar amount was currently set at $50,000. Mr. Bluhm concluded that he hoped there would be additional funds for this group, but could not guarantee it at this time.

Wakelyn asked if this FACA had its own budget, or would it come out of the overall budget for all FACAs.

Mr. Bluhm responded that at the current time, this Task Force was limited to $50,000, per year of NRCS funds, as defined in the FACA charter. The secretary has a limit of $1 million for all FACA efforts per year in Agriculture. Bluhm stated that because the AAQTF was convened under FACA, certain requirements would be mandated. For example, timely notices (preliminary agenda; time/date/location; etc.) must appear in the Federal Register and all meetings will be open to the public. He indicated that copies of all speaker presentations will be made available if you request them from Jeff Graham and the goal is to have the official meeting minutes available in 2-3 weeks via World Wide Web (WWW at http://NRCS.USDA.GOV). Additionally, as required in Section 552, their will be the opportunity for public review of all materials relevant to this process (e.g., all records, reports, minutes, etc.) and all materials will be available for public inspection at one location. The location of the docket is currently Room 6151 South Agriculture Building Washington, D.C.

Mr. George Bluhm stated that it was important in appointing the AAQTF, that a diverse balance was required by the FACA in establishing Task Force membership. The membership should represent the full spectrum of viewpoints on agricultural air quality issues. This balance should be comprised of health advocates, scientists, industry, production agriculture and other stakeholders. He stated that he thought a good job had been done along these lines, given that this was the first FACA that the NRCS had ever been responsible for convening. For future reference, Bluhm noted the following contact points for information regarding the AAQTF:

Designated Federal Official
George C. Bluhm
University of California, Davis

151 Hoagland Hall
Davis, California 95616-8627
(916) 752-1018 (phone)
(916) 752-1552 (fax)
Electronic Mail: bluhm@Crocker.UCdavis.edu

Official Record
Jeff Graham
P.O. Box 2890
Washington, D.C. 20013
(202) 720-0436 (phone)
(202) 720-2646 (fax)
Electronic Mail: jmgraham@erols.com

Bluhm initiated a discussion of the nomination and selection criteria, which were used to select membership on the AAQTF. He stated that the information was announced in the **Federal Register**, that at-large applications were accepted and that an Interagency group screened all applications/nominations. Recommendations were made to secretary and the administration, selections were made and each person selected has accepted a position.
Bluhm said that there were approximately 40 individuals nominated for the 20 available seats on the AAQTF. Thus, he indicated that there was a "reserve pool" of qualified candidates should any of the current Task Force members need to be excused from the FACA process due to extenuating circumstances. **However, Bluhm stated that he hoped that this would not be the case, as the most qualified individuals were currently sitting at the table.** He also stressed that each individual Task Force member should have equal access to all of the relevant information. When subgroups are formed and begin to meet, their results must also be presented to the committee as a whole, in order to keep the entire group up to speed.

Bluhm noted that each Federal agency runs a FACA committee a little bit differently. He cautioned the membership who have previously been on other FACA committees, that this was NRCS's first attempt at this and it could be handled differently. For example, he stated, that due to the extreme funding limitations, EPA requires all industry FACA participants to pay their own way to the meetings. This is not a requirement for the AAQTF.

Bluhm concluded his presentation by indicating that the Environmental Assessment Information was included in the handouts provided to each AAQTF member. Bluhm then opened the floor for comments and questions from the AAQTF members.

Quinn indicated to Bluhm that his address was listed incorrectly in the handouts.

Bluhm replied that he was passing around a sheet so that each Task Force member could update their personal information (e.g. address, phone, fax, e-mail, etc). He indicated that he would like to provide the general public with at least one phone number for each Task Force member, whether it was a home or office number.

Barker relayed to Bluhm that the Equipment Manufacturers Institute had decided that it would not accept any reimbursement for being involved in the AAQTF. Thus, he asked Bluhm is these additional funds could be used to add another farmer to the AAQTF.

Wakelyn responded that the committee was limited to 20 members by law.

Bluhm confirmed that the law suggested 17 with the chair, but since this law triggered the FACA law a balance had to be maintained so that only 16, 20, & 24 plus the chair would be allowed. One more farmer would make 21 and the Task Force would be out of balance. So that any excess funds would simply be spread among the remaining 19 members on the Task Force.

PUBLIC COMMENTS TO THE AAQTF

Frank Thornton (Tennessee Valley Authority) stated that he was mainly here to learn but, that he was also here because the Tennessee Valley Authority (TVA) was involved in several environmental issues: (1) ozone, primarily through the Southern Oxidant Study (SOS) project (2) Nitrous oxides from soil emissions (3) ammonium sulfate and nitrate formation as related to PM-fines from large animal production centers (e.g. swine, cattle, etc.). Mr. Thornton concluded by remarking that TVA could provide a good deal of expertise in many of the areas that the AAQTF will be discussing.

Mike Wade (California Farm Bureau Federation) indicated that he was very involved in ozone and PM-10 research efforts in California. Mr. Wade also voiced concern about the three members of the AAQTF which were absent from today's meeting and he urged the Task Force leadership to appoint alternates to attend these meetings in the absence of the main Task Force members.

Since there were no further requests Gary Margheim closed the public comment period and asked that the group proceed with the next agenda item.

Margheim requested that Bluhm preview the afternoon session and overview the goals of the work group meetings.

The afternoon session would start by giving selected individuals the opportunity to share their research interests with the AAQTF and allow for discussion of these issues. After the

presentations, the Task Force would be divided into workgroups. That would be trying to identify the major research areas needed for agricultural air quality and then allow adequate discussion on these topics. After the major research areas have been identified, ideas and issues, will be brought back the next day and reporting to the whole Task Force.

Bluhm said that during the morning session of Day 2, Joe Glauber, Deputy Chief Economist will discuss USDA's response to EPA on the proposed standards. Following this presentation, we will make the work group presentations available to the general public. Following lunch on Day 2, we will collate and prioritize all of the ideas from the workgroup sessions and present this to Task Force. Prior to closing the meeting, we will be asking for volunteers to tackle each of the identified issues and then asking each volunteer to organize an action plan to resolve the assigned issue.

Barker responded that he was appreciative that Joe Glauber was participating on Day 2. However, Barker stated that perhaps the AAQTF should be involved in making recommendations to the Secretary on what we think the USDA's response to EPA should be. Barker concluded that at the very least, this committee should review USDA's response prior to it being submitted to EPA.
Bluhm commented that the Secretary is required to submit a response to EPA by March 12, 1997 and that there was an interagency group currently in place to review these issues.

Shaver commented that the revision of the ozone and particulate matter standards (and the Regional Haze Rule) is a rulemaking process and that the United States Environmental Protection Agency (EPA) has gone outside for full public comment. Shaver stated that this comment period is scheduled to close on March 12, 1997. However, she continued saying that EPA was interested in what each member of the AAQTF had to say and was very much interested in USDA's comments. Shaver said that it would be most helpful to EPA if this Task Force could make timely input on the actual implementation approaches and that this would not need to be done until early summer, say in July, 1997 when the actual rules are promulgated.

Barker interjected that these answers were not satisfactory and that he would like to revisit Bluhms discussion of the group's charter. Barker stated that many of the individuals seated at this table today have been involved in these wonderful Washington Task Force Meetings, which essentially end up doing nothing. Barker concluded that the AAQTF was essentially being disenfranchised from the process by the schedule that EPA had currently set.

Wakelyn asked if there was any interaction between USDA and EPA. He questioned how the information from this committee would filter to both agencies. Wakelyn stated that we can talk for two years, say goodbye, and nothing will have been accomplished. He concluded that if this was the case, then none of the group had any business being here in the first place. The group would simply be wasting the individual member's time and efforts.

Bluhm responded that the main reasons Joe Glauber was attending the Day 2 morning session was that he was interested in providing opportunity for mutual understanding and their input. Bluhm indicated that he thought their concerns would be diminished when the group heard what Joe had to say. He indicated that Joe would very much like to hear your comments on this material. Bluhm reminded the group that this was his own personal judgement and that he did not know this for a fact. He reiterated that the USDA was looking for a open process and an open relationship for this committee. He reminded the Task Force that EPA was being controlled by the courts and that this group needed to seek a solution as expeditiously as possible. Bluhm stated that he had been on the EPA Task Force for two years and that there had always been an open relationship between EPA and USDA. He asked Ms. Shaver if this was still the case, or should the task force establish a formal Memorandum of Understanding (MOU) between EPA & USDA.

Hambleton commented that it would all rest on the importance of this committee. Hambleton stated that this group was plowing new ground and that none of the Task Force members came to Washington to be a rubber stamp. He said that this committee should have the opportunity somewhere down the line to have another shot at providing input to the USDA Secretary and ultimately to the EPA. He concluded by saying that the opportunity to respond more fully to The Secretary of Agriculture's response to EPA would in turn generate a better working relationship between this committee and EPA.

Shaver replied that EPA would welcome more interaction with USDA and specifically the Task Force. Shaver stated that EPA did not want to control agriculture and that the USDA was fully capable of handling its own issues. However, Shaver responded that the time table could be problematic.

Bluhm questioned if the USDA could provide input after the March 12 deadline?

Shaver responded that USDA could do so through the interagency communication review process, which could take place up to the July 1997 promulgation date.

Parnell stated that he still had some concerns. Parnell said that when he was initially approached about being on this committee that he indicated that he was not interested in drinking coffee and talking agricultural research among a bunch of good old country boys. Parnell indicated that this group's charter is much more far reaching than this. Carol Browner is doing an excellent job and I am not sure she really wants a lot of input from a bunch of agricultural types. He concluded saying that the difficulty he has is what influence is this group really going to have or can it have? Parnell said that if we cannot influence the regulatory process, that he may not be here next time himself.

Cunha reminded the Task Force that the reason this group was convened was that there are a lot of concerns regarding agriculture and air quality-related issues. This is a great opportunity to provide the link to EPA for agricultural concerns. It could be a formal MOU between USDA and EPA to improve overall air quality. The Task Force was developed by statue to be taken seriously - EPA does not want to be involved in agriculture; they would like USDA to provide them the necessary assistance to deal with agricultural issues. EPA can only use what is made available to them. The key here is to develop the link between agricultural science and the policy makers at EPA. Secondly, Joe is attending Day 2 to give us the summary of all the information that he has gathered in recent months. Cunha concluded by saying that it would behoove this committee to take the authority in the Farm Bill and make a recommendation, on Day 2, to the Secretary of Agriculture. It is important to let him know how we feel. We are here to give EPA the information they need on agricultural air quality issues and to strengthen the working relationship between EPA and USDA. I would like to see an new AP-43 that is entitled "USDA Air Quality Related Issues".

Bluhm suggested that one of the working groups get together following today's meeting and piece together some of these recommendations.

Margheim concurred that if the AAQTF was not going to have an impact, that we in fact should all go home. Margheim reported that his struggles with the Farm Bill negotiations made him fully aware of the pit falls of this type of effort. However, Margheim said it was unclear to him whether a formal MOU with EPA was actually necessary. He stated that the ultimate response would be to get this group's recommendations over to EPA in time to be included in the rulemaking process.

Additionally, Margheim reminded the Task Force that we needed to identify the critical research needs for the future - both to identify them, as well as to coordinate resources and reduce the opportunity for duplication of effort. One of the key things we need to decide on is what process you as the committee want to use to ensure your concerns are voiced and heard at the Secretary-level and subsequently transmitted to EPA for consideration in the rulemaking process. Margheim concluded saying that he could not speak for the Secretary, but that air quality is very high on his agenda and that he would take the Task Force's recommendations seriously.

Tristao stated he would like to echo Manuel Cunha's comments. Tristao said that he supported the subcommittee work groups that are scheduled for this afternoon and indicated that this process will give us the opportunity to make recommendations that we can act upon. He concluded that this group is on the fast track, but that it could make a real difference.

Breeze commented that in the short-term future, she could already see a couple of areas where this group could make a difference. She reminded the group that March 12, 1997 was over a week away and that still left time to get comments in under the wire. Secondly, she reiterated

Shaver's earlier comment that the implementation is not until July 1997, so the Task Force has an even larger window through which to effect the policy.

Shaver stated that the change in the standards would be initiated at promulgation in July, 1997. When the standard is promulgated in July, you have up to 3 years to designate new nonattainment areas and those areas have a maximum of 3 years to submit their State Implementation Plan (SIPs). Thus, you are looking at a period of 5- 6 years from the date of promulgation before a state must develop and submit their SIP. There is an Interim Implementation Plan (IIP) that has also been published for ozone, which would handle the interim period between the new promulgation and the designation process. Shaver said that EPA was also proposing Phase I guidance in July and it will address designation and classification of areas. Currently, EPA's FACA is meeting almost weekly to finalize these policies. For example, there is a lot of support now for the concept that one size does not fit all; there is support for flexibility; there is support for balance across all sectors (e.g. mobile, area and point sources). We have identified regional transport as a key element in whatever standards are promulgated. Phase I guidance would be proposed in July 1997 and it would be finalized in July 1998. However, we would like to move this up to February 1998 and promulgate Phase II guidance in July 1998 (which would deal with control strategies, etc.). Finalization of Phase II guidance would be in 1999. Obviously, we have problems with PM-fines because of the inability of EPA to get the monitors out and collect/analyze data. Nothing is in stone, we are at the table with the stakeholders as we speak trying to work out the finer points of these issues. Thus, there is plenty of time for input and EPA does see your input as a Task Force and government agency as valuable and appreciated.

Sweeten stated that the Task Force is attempting to play catch-up to the regulatory process and that this is unfortunate. Regulations tend to restrain/constrain funding for research. Regulations tend to foster thinking inside the box and discourage innovative thinking outside of the box. Sweeten challenged the group to keep this in mind as we proceed with this process. He acknowledged that a good deal of the schedule is probably not to EPA's liking and is forced by the court deadlines. However, he stressed that the Task Force cannot lose sight of science and how it must underpin everything that the Task Force recommends. Sweeten cautioned EPA not to act in haste and generate poor regulations and guidance, when there is limited available research funding for improving/enhancing the current policy making process.

Barker asked where the SIPs come into the implementation process? Barker concluded that from Sally Shaver's discussion, that this is all organized by EPA at this time.

Shaver replied that the standard is actually implemented by the individual states (SIPs) and tribes (TIPs). These will all be required in the 5-6 year time frame. However, some SIPs will be due prior to this time to correct monitoring and data analysis deficiencies. Shaver stated that EPA will be looking for recommendations from all groups as we move through this process.

Barker stated California does a lot of wonderful things (at least according to the people sitting around this table!). Barker indicated that essentially, California told EPA to bug-off and let them do it their way and to his knowledge this procedure has worked quite effectively.

Shaver responded that EPA is required by Federal law to set the NAAQS. The regional haze limits may be set regionally. However, each individual state has the right to set more stringent standards than the federal. What EPA is hearing is that in terms of source controls, give us more flexibility and allow us to set controls as they best work for our individual states/tribes.

Margheim suggested that the group break for lunch at this time. He asked the Task Force members to discuss among themselves what recommendations should be made to the Secretary tomorrow in order to have maximum impact on this whole regulatory process.

(* The meeting was adjourned for lunch ***)**

Margheim opened the afternoon session by stating that we need to have a very balanced approach from this group on reviewing research and reviewing regulations. He emphasis the need to set the framework and level the playing field this afternoon, by having some presentations which will frame the state-of-the-science on the pertinent issues.

Bluhm said that he would like to thank Dr. Robert Flocchini for coming from the University of California-Davis (UC-Davis) to be with the group this afternoon. Bluhm indicated that anytime you discuss particles in California, the popular UC-Davis studies come up.
Barker suggested that all Task Force members receive copies of all the speaker's overhead transparencies for their files.

Margheim agreed and said the he would make sure that this happened.

Presentation by Dr. Robert Flocchini, University of California-Davis

Dr. Flocchini began his presentation by stating that his Ph.D. was in Physics; however, he had been affiliated with air quality-related research since 1971. Dr. Flocchini said that at UC-Davis, they look at environmental science from an integrated perspective. Currently, he is chairing a committee at UC-Davis on environmental effects/issues and his main goal is to integrate across all disciplines. Dr. Flocchini admitted that he did in fact have some biases. He said that he wanted people to really understand what PM-10 is because most people do not. Whereas, we do understand that ozone is three oxygen atoms bonded together. PM-10 also varies in space and time as ozone does. However, we do not know the chemical composition of PM-10 concentration simply from the current gravimetric analyses. We need to speciate. My second bias is about numbers. People view numbers as absolute; these measurements are not absolute - they have ranges, inherent errors, etc. No measurement is perfect; if it is, it is by definition invalid.

My third bias is, we are starting to discuss the changes in the standard and in fact the proposed standard is moving to smaller and smaller size particles. Thus, I think the use of state boundaries is ridiculous. As the particles get smaller, then they by definition will transport further. As particles get smaller, gravity is no longer the key downward force. Other forces such as buoyancy now become the major depositional restrictions. Fourth, we have talked a great deal about developing models. Models need data in order to be verified. Whenever you are dealing with models, you are dealing with approximations, which require data to be used properly.

UC-Davis Experience in Air Quality

National Science Foundation

Prototype rural monitoring network. Predecessor to National Park Service IMPROVE network. (Cahill and Flocchini, early 1980)

National Park Service

IMPROVE network. 70 sites in Class I areas. (Cahill and Eldred, mid-1980s to the present)

California Department of Transportation

Assessment of highway type on air pollution (Cahill, Flocchini and Feeney, 1971-1073)

PM-10 from freeway. (Ashbaugh, 1995 - present)

California Air Resources Board

Thirteen station urban PM monitoring network. (Cahill and Flocchini, mid-1970s)

Department of Defense

Assessment of R-2508 Airspace. (Flocchini 1980-1985)

San Joaquin Valley Air Authority

An assessment of PM-10 from agricultural practices. (Flocchini, 1992-1994)

USDA

An assessment of PM-10 from agriculture practices in California's San Joaquin Valley. (Flocchini and Ashbaugh, 1994 - present)

International Programs
Japan, Chile, Brazil, Eastern Block, Middle East. (Flocchini, Cahill and Perry, 1990 - present)

USDA Funded Research

Introduction

California's San Joaquin Valley exceeds state and federal PM-10 standards
- Most exceedances occur in winter months
- Late fall also has high PM-10

Soil dust dominates PM-10 in the fall month
- Harvest emissions are poorly known

Secondary ammonium nitrate and primary motor vehicle particulate matter dominate in winter months
- Ammonia emissions from animal operations are poorly known

Air Pollution District needs inventory information to develop SIP

Mean PM-10 by Month (1986-1993)

The chart presented is based on California Air Resources Board (CARB) 1 in 6 day PM-10 measurements. The trends were as follows:
- spring months and early into the summer are below the federal standards
- in the fall, levels start to grow, peaking in October and November

UCD/USDA Research Objectives

Measure PM-10 emissions from agricultural activities
Investigate controlling parameters for PM-10 emissions
Examine relationship of soil character to PM-10 emissions
Explore possible equipment changes that could minimize dust emissions

Source Contribution Estimates

Soil particles tend to dominate in the fall months. This data is taken from Desert Research Institute data. PM-10 in the winter months are not dominated by soil particles; they are dominated by ammonium sulfate and ammonium nitrate, wood smoke and vehicle exhaust. In paired sites for data collection, we have Fellows, California, which is a rural site, and Bakersfield is an urban site, where the concentrations are the highest. You see similar results for Fresno and Kern Wildlife Refuge. PM-2.5 particles tend to drive the exceedances in the data sets collected in Southern California. Most of these samples are carbon particles, which means they come from fireplaces in winter.

Top 10 Crops Harvested in the San Joaquin Valley

Cotton, hay (alfalfa and others), grapes (raisin type), almonds, corn (silage), grapes (wine type), oranges (navel), tomatoes (processing), wheat and walnuts.

Sample PM-10 and PM-2.5 Collection Program

IMPROVE Filter Samplers
- Visibility monitoring network for NPS/USFS

Critical orifice for flow control
Teflon filters
PM-10 at 16.7 lpm (intake flow rate)
- Sierra Anderson Inlet Model 246B

PM-2.5 at 22.7 lpm (intake flow rate)
- Cyclone designed by Walter Johns

Analyses

Gravimetric (mass)
Laser Integrating Plate Method (soot)
Elemental Analysis (elements, H, Na, Pb)
- PESA, PIXE, XRF
- Soil elements (Si, Al, Ca, K, Ti, Fe)

Average PM-10 Emission Rates - 1994 Measurements

Complete data QC/QA takes approximately a year and a half to complete because meteorology is also considered. Thus, the 1994 results are the most recent that I have available to discuss. The graphs indicates that Almond Pick-up is a factor of 10 greater than the other crops that we are looking at in the San Joaquin Valley. Thus, almond farming contributes the most dust at the source in the San Joaquin Valley.

Average PM-2.5 Emission Rates - 1994 Measurements

In general, the PM-2.5 emission rates are approximately a factor of 10 lower than PM-10 estimates, previously presented. For the current example of almond pickup, the following emission rates were calculated:

PM-10: 1438 " 395 kg/km^2
PM-2.5: 170 " 18 kg/km^2

Order of Magnitude of Almond Harvest Emission Impact

Assumptions

San Joaquin Valley is 25,000 km^2

Almonds cover 200,000 acres in the San Joaquin Valley

3 day residence time for emitted particles

Nut pickup emissions are 2000 kg/km^2

Mixing height is 1 km

Harvest period is 30 days

Result

Almond harvest emissions account for ~ 6 :g/m^3

Caveat

Particles deposit between source and receptor

Order of Magnitude of Almond Harvest Emission Impact

Assumptions

San Joaquin Valley is 25,000 km^2

Cotton covers 1,150,000 acres in the San Joaquin Valley

Three day residence time of emitted particles

Cotton harvest emissions are 100 kg/m^2

Mixing height is 1 km

Harvest period is 30 days

Results

Cotton harvest emissions account for ~ 2 :g/m^3

Caveat

Particles deposit between source and receptor

Dr. Flocchini concluded his presentation by posing seven questions to the Task Force, which he considered relevant to their discussions over the next two days.

PM-10 "RESEARCHABLE" QUESTIONS
1.What constituents of PM-10 are the most harmful and therefore the most critical to control first? 2. What are the relative contributions of local versus transported pollutants contributing to PM-10 problems at receptor sites? 3. Would it be possible to assemble an inventory of emissions for PM-10 and who are the "actors"? 4. Is it possible to determine the chemical and physical features of PM-10 that could discriminate sources? 5. Which agricultural activities contribute the most to PM-10 generation? 6. Is it possible to conduct a serious cost-benefit analysis of PM-10? 7. What kind of tools are needed to accurately measure PM-10 emissions from a field?

Ferguson asked Flocchini if he was using a Light Detection and Ranging (LIDAR) system in any of his measurements?

Flocchini replied that yes, they were using a LIDAR system, which was essentially a radar for particulates. LIDAR allows very fine resolution in the atmosphere, which you could never do with an ambient sampler. LIDAR allows a three-dimensional mapping of the atmosphere with respect to particles. We are also proposing to the University to purchase a LIDAR which will measure temperature and water vapor. We are also proposing a LIDAR to USDA which will do sample speciation as well.

Sweeten stated that he was aware of a lot of research at UC-Davis, which was not in the current literature. However, he questioned if any of the source data were available?

Flocchini replied that they had done some measurements on ammonia with the animal science personnel at UC-Davis, but we are not ready to distribute the data at this time. He cautioned Sweeten that anything that he would release, would have to be considered draft or preliminary measurements.

Sweeten replied that it sounded like Flocchini had not really proven anything at this point.

Flocchini said that would be a correct assumption.

Quinn stated that Flocchini's seasonal distribution of PM data is not surprising. Quinn indicated urban sources have long been identified as major sources in this region because of wood smoke. In Oregon, we would also have a problem with secondary road dust from road sanding, etc. during winter months. In fact though, it is the variation in meteorology which is driving the concentration fluxes.

Flocchini acknowledged Quinn's statement and indicated that he would agree.

Cunha asked if Flocchini was also looking at soil NO_x and other soil fluxes?

Flocchini responded that they were; however, these studies were very new. He indicated that most of the proposals that his group distributes are to gather basic research and science prior to a full-blown research project.

Hurley questioned what Flocchini had done with respect to soil characteristics, PM-10 concentrations, and equipment changes?

Flocchini stated they had some work in these areas. For example, planting grass/vegetation between agricultural roads, wetting fields prior to harvesting, etc. In terms of equipment, UC-

Davis is working with almond harvesting equipment firms to test different machine types and evaluate the results.

Margheim asked Flocchini how could you translate this data on PM-10 and PM-2.5 into human health and welfare impacts?

Flocchini responded that this was not his area of expertise. However, Flocchini suggested two concepts. First of all, when you design standards based on urban data, he recommended that you should first compare them to data at rural sites to see how representative the data are. Secondly, he commented that if the nose is working properly, the PM-10 particles are swept out and swallowed, while it is the particles smaller than 1 micron that get inhaled and lodge in your lungs.

Wakelyn stated that you need someone who can measure these particles during an epidemiological study, so the concentration data can be compared to the epidemiological results.

Saxton asked Flocchini what impact his research has had in terms of changing regulatory numbers (e.g. AP-42)?

Flocchini responded that he believed the emission rates that his group has generated have been quite good. However, he indicated that the error comes in the application of these rates on a case by case basis.

Cunha informed the Task Force that figs are picked by the same machines that pick almonds and that figs cover approximately 15,000 acres in the San Joaquin Valley.

Saxton asked if the CARB had been made aware of this fact?

Cunha responded that CARB was aware of this information and he commended the USDA for making these measurements.

Shaver asked if there was currently an adequate mechanism to feed agricultural data into AP-42?

Flocchini responded that it could be a very tedious process. First, we go to the meetings and present our results. Then we go to the journals and the information is peer reviewed. Currently, regulatory agencies are accepting our results and using them. Thus, regulatory agencies do accept this information, but it does not happen overnight. Someone this morning mentioned an AAP-43" and I think this would be a good idea.

Bluhm added that in the San Joaquin Valley a good deal of the PM is measured under low winds and inversion conditions, which may not be the case in the Pacific northwest. Following this comment, Bluhm asked for the next presentation: Dr. Keith Saxton.

Presentation by Dr. Keith Saxton, USDA/Agricultural Research Service

Dr. Keith Saxton indicated that the basis for his presentation would be the USDA Report entitled, *Northwest Columbia Plateau Wind Erosion Air Quality Project: An Interim Report*, which was handed-out to everyone attending the meeting. In the late 1980s and early 1990s, we had several very dry years along the Columbia Plateau. Superimposed on this dry period was the 1990 Clean Air Act Amendments (CAAA), which required additional monitoring. Thus, wind erosion on rural lands and urban particulate matter became a serious problem in Pacific Northwest. Southeastern Washington is a very productive agricultural region. However, let us talk about Spokane's air quality issues for a minute. Spokane has completed their SIP. They have 4 or 5 PM sources - unpaved roads, winter traction sanding, wood burning, and farmers upwind (wind erosion). Also, farmers in the local area burn blue grass between August and October. So, they immediately went to work, paving roads, changing from sand to liquid winter traction substitutes, they reduced wood burning under certain conditions and they limited the burning of fields by the local farmers. The one thing that has not been defined and controlled is the wind erosion. So the Agricultural Research Service (ARS) designed a test field to determine exactly what was being transported under the auspices of wind blown dust.

Chapter 1, which begins on page 9 of the previously mentioned report outlines the project and details the topography of the area. Page 11 has a table which lists the 11 objectives of the study. Essentially the objectives of the study were to identify what we knew about the study area, what we needed to know to solve the issues, and how to get all of this information into a Geographic Information System (GIS) at 1 or 2 km resolution.

Objective Number 1:	Identify the necessary variables across the study region.
Objective Number 2:	What has been done regarding wind erosion? (A good deal of research has been done in Texas, but not in the Pacific Northwest).
Objective Number 3:	Develop a PM-10 air quality inventory for wind erosion events along the Columbia Plateau.
Objective Number 4:	Evaluate modeling tools for assessing wind erosion impacts.
Objective Number 5:	Define emission control strategies
Objective Number 6:	Reclassify areas based on information/knowledge gained.
Objective Number 7:	Anthropogenic versus Non-Anthropogenic Effects.
Objective Number 8:	Public Awareness/Education Programs.
Objective Number 9:	Health-related impacts.
Objective Number 10	Develop Best Management Practices (BMPs); Evaluate cost-effectiveness.
Objective Number 11:	Develop region-wide air quality plan.

Dr. Saxton stated that a real issue in the Pacific Northwest was source attribution for fine particles. A geologist has looked at what impact man has had on the soil make-up of the region.

The story will come out that the farmers are causing the problem for Spokane. However, are we really certain where the soil is coming from that ends-up on the urban sampling filters? Dr. Saxton indicated that ARS was looking at this by looking at individual soil particulates to try and do source attribution. For example, look at road dust from within the city, agricultural dust from upwind, and the biological differences between the two types of particles to allow source attribution. Dr. Saxton indicated that he believed this level of discernment was viable, but that he was not sure that we would ever get to the point of determining sources between two adjacent fields.

Ferguson stated that he was not aware of any medical studies that differentiated between urban particles and rural particles. He indicated that the majority of medical studies were of cause and association-type studies, which simply linked increased hospital admissions to increases in fine particle concentrations.

Dr. Saxton said that the final area of investigation was aimed at identifying the costs/benefits to controlling the dust and at what cost to the farmers. ARS economists have shown that the urban citizens are tired of the dust blowing in and that they would be willing to pay to clean this problem up. The ARS study showed that the average Spokane citizen would be willing to pay approximately $1000 to remedy the dust problem. We are exploring control measures with the farm population and reviewing different options. We started this project with a real "kid glove" approach because the farmers had just been through the water quality ringer and we knew they would be skeptical. However, we have had really good support from both the urban and rural communities on working towards a cost-effective solution to this problem. Dr. Saxton concluded that the question before this Task Force were identical to the questions ARS initially struggled with for the Columbia Plateau program: Do you need to do research, or do you know enough to simply jump right in? Dr. Saxton stated that ARS found out very quickly that they needed to do some basic foundation research.

Bluhm opened the floor for comments, questions and other discussion.

Hambleton aked: If he had all the resources in the world, could he solve the Pacific Northwest's dust problem?

Dr. Saxton responded that if you preserved every bit of the residue, kept it rough and damp, you could eradicate the wind erosion problem. However, this response needs a qualifier because it is with regard to the average winds. With respect to the natural events policy, EPA has said at some level of wind speed, there is a threshold above which we will not be able to control wind erosion and dust. So, there is some level beyond which the wind would simply blow your sod out of the ground.

Hambleton questioned the ability to rapidly increase soil organic matter, given the extreme summer temperatures in the region.

Dr. Saxton voiced his agreement and indicated that there were few ways to increase soil organic matter rapidly.

Wakelyn asked Dr. Saxton what percentage of the wind erosion was PM-2.5?
Dr. Saxton responded that approximately 20-25% is PM-2.5, according to what his instruments indicated; but, this data has not been rigorously reviewed.

Sweeten asked Dr. Saxton to repeat the percentage.

Dr. Saxton remarked that these numbers are truly preliminary at this stage and as such, should not he quoted for research purposes.

Quinn stated that the seasonal climatic cycles play a huge role in this whole picture.

Dr. Saxton agreed with Dr. Quinn, emphasizing that the field's exact place in the annual growing cycle is very important in determining wind erosion characteristics. However, he reminded the group that the one constant in all of this was the soil characteristics.

Barker stated that the Spokane people said they would be willing to pay something to clean all of this up; however, he was uncertain what it was that they were seeing that made them willing to pay?

Dr. Saxton responded that he was not a sociologist, so he was not qualified to answer that question. However, he indicated that Spokane physicians have banded together to target PM as a culprit of increased hospital admissions and a series of other health-related issues. Also, the state is saying that if we do not clean up the wind erosion problem, that the region will shift into nonattainment under the proposed standards and this would most likely bring "baggage" to the planning process.

Quinn offered that most of the hospital data showed that the majority of the admissions occurred during the grass burning season. Thus, the threshold for irritation is high and there is the public perception that burning is going on; however, Dr. Saxton's results show that burning is not likely the major culprit.

Wakelyn cautioned that it is one thing to have people say they are willing to pay a $1000, but it is another thing to have them actually write the check.

Cunha asked how many acres have this PM-10 wind erosion problem on the plateau?

Dr. Saxton replied that the figure is not precise, but approximately 300,000-400,000 acres.

Cunha asked if these regions were in close proximity to water? If so, how feasible would irrigation be as a control measure?
Quinn responded that you could not begin to comprehend the competition for water resources in the Columbia River basin.
Dr. Saxton offered that irrigation had been successfully used on the western side of the plateau; however, he indicated that you rapidly reach the point where the economics preclude its use. This region has a lot of CRP lands contained within it. However, the solution to this problem is a long-term solution, which will evolve over the next 6-10 years. I think we have turned the corner and are moving in the proper direction. Dr. Saxton concluded saying the three major short-term goals of the project were: (1) to turn the tide on the research issue (2) the grass burning issue is real and needs more research (3) what is the impact of ozone on plant growth.

(* The meeting was adjourned of a 15-minute Coffee Break ***)**

Wanda Robinson (NRCS) provided a brief discussion of the procedures for completing the federal travel voucher for meeting participants during the break..

Presentation by Dr. Calvin B. Parnell, Texas a&M University

Dr. Parnell indicated that he was going to update the group on what was currently going on at Texas a&M University (TAMU) with regard to agricultural engineering. He indicated that he taught the air pollution engineering class at TAMU. It is the only air pollution class offered in the Engineering Department. Dr. Parnell indicated that Dr. Sweeten was a colleague of his and that his daughter was employed by the Texas Natural Resource Conservation Commission (TNRCC). Thus, he was well versed in agricultural engineering research issues and the regulatory side of agricultural air quality problems.

Dr. Parnell indicated that the primary focus of his research has been in engineering. Basically, individuals who have a problem, come to TAMU, he performs some basic research and attempts to solve the problem(s). For example, somebody comes in and says my cotton gin is not in compliance. The engineer then simply goes out and tries to formulate a solution that will make that cotton gin operate within compliance. This example essentially summarizes my career.

Dr. Parnell reminded the group that we have a responsibility to be honest with our colleagues. Since the CAAA of 1990, there have been major changes in how agriculture is treated as an air quality entity.

Graduate Student Research at TAMU

(1) Dispersion Modeling

Industrial Source Complex Model, Version 3 (ISCST3) has an inherent error. When Turner developed the Gaussian model, it was developed for 10-minute averages. The modeling community then took this research and equated a 10-minute average to a 1-hour estimate and the 1-hour estimate to a 24-hour average. This is not good science and we have been trying to solve this problem for the past several years.

(2) Odors and Ground Level Sources of Pollutants

(3) Emission Factors That are in Error (Fugitive emissions from cattle feed yards; feed mills and grain elevators; etc.)

Dr. Parnell suggested that there needed to be a better system for getting corrections adopted within AP-42. He indicated that last change he was involved with took over 2 years to become effective. In conclusion, he stated that these documents are important because people see these EPA documents and instantly take them for "the Bible". Thus, USDA must strive to make a system that works and allows for quick responses and changes to these standards.

Bluhm opened the floor for comments, questions and other discussion at this time.

Cunha asked if Dr. Parnell dealt much with wind erosion in Texas?

Parnell responded that most of his research was related to agricultural processes (e.g. grain mills, cotton ginning, etc.). However, he offered that Dr. Shaw (also of TAMU) has a keen interest in these types of applications.

Parnell stated that there is a perception on the part of EPA, that if TAMU is funded by a private interest group, then they have been hired to get the lowest possible emission factor - "a hired gun" so to speak. However, this is generally not the case. Parnell cited the AAQTF as an example of a group that is not trying to get something less than sound scientific principles included in the air quality regulations; this group is not a "hired gun". He indicated that part of the reason we are here today is because in the 1970s and 1980s we really did not consider emission factors. However, when the 1990 CAAA came along, then people all of a sudden decided that emission factors were extremely important.

Wakelyn asked Parnell to elaborate on his graduate student who was working on microbial decomposition of PM-10.

Parnell corrected Wakelyn, indicating that this was not one of his students, rather a colleague in Amarillo at the Agricultural Research Center.

Sweeten offered to answer Wakelyn's question, stating that this research was in a very preliminary stage at this time. He indicated that preliminary would be an understatement of the status of this

project at this time. They are working at this time on how to sample and what microbes may/may not be present on feed yard dust. There is a veterinary biologist working on this project down in Amarillo. There is not an abundance of microbes on feed yard dust. This is basically an animal health study, it is not designed to effect human health impacts.

Wakelyn responded that any dust you collect would have measurable microbes present.

Sweeten emphasized that the principle focus of this effort was on cattle health effects. He indicated that feed yard cattle can be very stressed.

Bluhm stated that we had now heard from the major agricultural research centers and that we would like to give Sally Shaver the opportunity to update us on EPA's perspective on all of this.

Presentation by Ms. Sally Shaver, United States Environmental Protection Agency

Ms. Shaver indicated that she did not come prepared to present any Office of Research and Development (ORD)-specific issues, so she would b speaking solely from the Office of Air Quality Planning and Standards (OAQPS) perspective.

Overview of NAAQS Reviews

CAA requires 5 year review cycle
Primary (health-based) and secondary (welfare-based) standards
Review of NAAQS involves public participation as well as Clean Air Scientific Advisory Committee (CASAC) review

Different Considerations Used in Setting and Achieving NAAQS

Setting the standards - health effects and environmental effects
Achieving the standards - costs and time to attain the standards

Ms. Shaver reminded the Task Force that all things cannot be accurately costed-out. EPA has done a Regulatory Impact Analysis (RIA) and has looked at the costs of implementing various control strategies (e.g. what is the value of 2 years of life of an elderly person?).

Wakelyn asked what the RIA was used for if it is not used for setting the standard?

Ms. Shaver replied that it is completed because of the regulatory order; however, she stated that EPA is precluded from using it in setting the standard.

Scientific Basis for Proposed Revision to Ozone Primary Standard

Extensive review highlighted over 180 key studies

Ozone levels below current standard cause significant health effects in children and other susceptible populations

CASAC unanimously agreed that the current 1-hour standard should be replaced with the 8-hour standard to adequately protect human health and welfare.

Populations at Risk from Ozone Exposure

Children

Outdoor workers

Individuals with respiratory disease

Highly sensitive healthy individuals (about 15% of the population)

Ozone-related Health effects of Concern

Moderate to large decreases in lung function

Moderate to severe respiratory symptoms

Increased hospital admissions and emergency room visits

Proposed Revisions to the Ozone Primary Standard

Current 1-hour standard

- 0.12 ppm
- form: exceedance-based

Proposed 8-hour standard

- 0.08 ppm 8-hour average concentration
- form: concentration-based

Scientific Basis for Proposed Revision to Ozone Secondary Standard

Extensive review highlighted key studies showing ozone-related effects on commercial and natural vegetation

Crop damages

Ozone Related Vegetation Effects of Concern

Injury to vegetation is the principal effect

- Leaf injury
- Crop yield reductions
- Growth/biomass reductions
- Increased susceptibility to stress, pests, and disease

Effects in commercial crops and forests, fruits and vegetables, ornamentals, and natural areas (parks, wilderness areas, wildlife habitats)

Effects are a function of cumulative exposure over the entire growing season

Proposed Revisions to Ozone Secondary Standard

Set a secondary standard equal in form and level to a new 8-hour primary NAAQS, which is the current standard (e.g. hourly standard)

Set a new seasonal secondary standard which sums key exposure values over a 3-month period

Scientific Basis for Proposed Revisions to PM Standards

Extensive review highlighted over 80 key studies

Over 60 studies found significant links between levels at or below current standards and premature death/serious illnesses

PM-Related Health Effects Concern

Increased premature deaths, primarily in the elderly and those with heart and lung disease

Aggravation of respiratory and cardiovascular illnesses, leading to hospitalizations and emergency room visits

Lung function decrements and symptomatic effects, particularly in children and asthmatics

Changes to lung structure and defense mechanisms

Proposed Revisions to PM Standards

Current PM-10 Standard

Proposed PM-2.5 Standard

Proposed PM-10 Standard

Scientific Basis for Proposed Particulate Matter Secondary Standards

Visibility impairment is principal environmental effect

- Other effects include soiling, materials damage, and nuisance effects

Primary causes: fine particles (sulfate, nitrates, organics, elemental carbon (soot), and dust)

Regional conditions vary significantly due to humidity, natural and manmade emissions

East:	Natural - 150 km	Current:	23-39 km
West:	Natural - 230 km	Current:	50-150 km

Ozone/PM/Regional Haze FACA: Background and Purpose

Change the way implementation strategies are developed for NAAQS

Formed subcommittee for Ozone, PM and Regional Haze implementation Programs in 8/95 under the CAAAC

Purpose: Advise EPA on ways to develop innovative, flexible, and cost-effective implementation strategies that integrate ozone, PM, and regional haze consideration

This where cost can play a major role

Composed of 58 members, with representatives from States, local agencies, tribes, environmental groups, industry, Federal agencies, and scientific/academic institutions

Wakelyn asked if there were any agricultural people on the EPA FACA?

Ms. Shaver responded that there really were not. Obviously, NCRS, George Bluhm and Donna Lamb, FS represents USDA on the FACA and the Western Governors Association are represented.

FACA Timeline

Initial attainment date is 5 years from your initial designation - most likely around 2004. There is a provision for an additional 5 years within the CAA, so this date could push back to as late as 2009. The issue of the timeline has been widely debated at the FACA table in recent meetings. Thus, attainment can even be further than the dates we discussed this morning.

Barker asked for more detail on the early stages of the process.

Ms. Shaver responded that if you promulgate, then within a year, the governor must designate within one year all areas that will not meet attainment. Then EPA has one year to act on these designations. There is an additional year available, so this could take up to three years to complete. Obviously, for PM-2.5, we have no data so this designation is still up for debate.

Barker commented that one of the issues that he had heard discussed was that the governors had discussed with Administrator Browner the fact that EPA does not have the monitoring network in place (e.g., there is no data). Mr. Barker questioned if this was in deed correct?

Ms. Shaver said that in recognition of that, EPA would like to take the available information, some of which will not be Federal Reference Method (FRM)-approved data and use this for preliminary work (e.g. determination of Regional Air Management Partnership (RAMPs), control regions, strategy development), then make some preliminary designations based on this sparse data. Then as the data start to come in, adjustments could be made in these initial designations. This would allow areas which have known problems to jump-start the planning and get a handle on these situations. However, it may be tricky.

Parnell stated that it was his understanding that some PM-10 data has been ratioed to PM-2.5? Is this rumor or fact?

Ms. Shaver responded by stating that EPA went to the FACA and laid these 7 or 8 issues on the table. We did not get strong support for using a ratio method. There was probably one sector that would buy into this method. By far the majority of support was for waiting for the proper data to be collected; however, just don't sit there and wait in areas where you know you have a problem. To answer your question regarding this data being used in our analyses, this is not a true statement. There was actually PM-2.5 data in each of the cities cited in the EPA work.

Parnell questioned the validity of these data since they were not collected using the FRM.

Ms. Shaver indicated that the numbers EPA is currently reviewing would confirm that the data is accurate and believable.

Quinn asked how the governors could know how good this data is?
Ms. Shaver apologized that she did not have the answer for that question at this time. The FRM is not promulgated at this time; it will be done at the same time the NAAQS are promulgated in July 1997. EPA will be the sole determiner of the validity of the FRM.

Quinn asked if the designation of Areas of Violation (AOVs) would come from this very limited data sample?

Ms. Shaver suggested that one of the things that EPA is considering whether the Agency can do these designations on "a rolling basis". For example, can EPA legally wait for a year of data to be collected and verified, prior to making any designations?

Sweeten stated that he had a question on the PM-2.5 FRM and the instrumentation. Dr. Sweeten said that in 1987 when EPA changed from Total Suspended Particulate (TSP) to PM-10, the states were able to use two different monitors. As a result, the numbers generated from our feed yard dust experiments were radically different. Are we going to be faced with this same scenario with the proposed PM-2.5 FRM?

Ms. Shaver replied that it was unclear at this time, that the process was currently being sorted out. She indicated that EPA has several of the monitors out at this time and that the data being collected are good and consistent among the different monitors types and among different sites. Sweeten added that one of the biggest limitations to the research community is getting capital equipment costs into a grant to purchase equipment. He encouraged EPA to put as many of these monitors as possible (as soon as possible) into the hands of researchers, so that the instruments can be put into use and the research and data analysis can begin immediately.

Ms. Shaver stated that Congress had given EPA extra money to jump start the PM-2.5 Monitoring Program. She promised to make a note of this request and return it to the EPA monitoring personnel in RTP.

Sweeten suggested that perhaps EPA could loan some of this equipment to researchers.

Cunha suggested that we were digressing back to where we were in 1989, with some of EPA's philosophy to review the standards. The National Resources Defense Council (NRDC) report made a comment that a farm tractor driving with a tiller was the culprit of the majority of PM-2.5 and that this in fact was the "killer". This is dangerous to our industry. We would like to see EPA say "hey, this is not real because ....". Cunha stressed that these EPA reports need to be QA/QC'd

by other agencies and scientists to ensure that the real facts are being presented to the public. I want to know how EPA is going to deal with our specific industry.

Ms. Shaver indicated that EPA did not use the NRDC study as a basis for any of EPA's findings. They suggested 60,000 deaths and EPA is currently advocating a number between 20,000 and 40,000 deaths. In terms of PM-2.5, EPA feels very strongly about the epidemiological studies and what they show with respect to the linkages between increases in concentrations and the observed health impacts. These results hold-up across regions and between different cities and we are comfortable with this science and its credibility. We do not understand the footprint and the source regions, but the cause and effect is established and we are comfortable with this. As for how you regulate the farmers and the agricultural community, I cannot speak for the Agency. Personally, I do not want to regulate farmers. However, the USDA is the expert at this and I would prefer they make these types of decisions.

Barker questioned Ms. Shaver's comment that, "We are not going to regulate agriculture". Barker asked Ms. Shaver what she meant by this statement? The states are going to be the ones doing the regulating, all you are going to do is pass a law that says this is the standard. The actual regulatory actions will come from the individual states and tribes. So from area to area, the severity of regulatory actions will vary.

Ms. Shaver responded that Barker was indeed correct. The Columbia Plateau is a good example where the people recognize the problem and are willing to work together to solve it. EPA does not want to tell you how to do it, we want to leave the flexibility at the state/tribe/local level. Ms. Shaver resumed her presentation.

Implications of a Revised PM Standard

PM-10

Agriculture contribution is 24%
Continue with coarse particle control under the proposed PM-10 standard

PM-2.5

Agriculture contribution is 29%
Primary focus will be on combustion sources and secondarily formed PM

Dr. Wakelyn stated that EPA's numbers suggest that crustal material is not PM-2.5. So, if agricultural dust is all crustal material, how does it get to be 24%?

PM-2.5 Anticipated Emissions (major Categories) (Note: Data taken from pie charts)

Construction and Roads - 53.5%
Agriculture and Forest - 34.3%
RWC - 5.0%
Transportation - 2.2%

Manufacturing and Industrial - 2.0%
Fuel Combustion - 1.9%
Waste Disposal - 1.2%

PM-2.5 Anticipated AgSource Emissions (Note: Data taken from pie charts)

Fugitive Dust from Agricultural Crop Operations - 61.3%
Wind Erosion - 30.9%
Fugitive Dust from Agricultural Livestock Operations - 3.3%
Fugitive Dust (Unpaved Agricultural Land Roads) - 1.5%
Agricultural Burning - 1.4%
Non-Road Diesel Engine Emissions (Agricultural Sources) - 1.2%
Agriculture, Food, and Kindred Products - 0.2%
Non-Road Gas Engine Emissions (Agricultural Sources) - 0.2%

PM-2.5 Anticipated Forest Operation Emissions (Note: Data taken from pie charts)

Prescribed Burning of Forest Lands - 53.5%
Fugitive Dust Unpaved Forest Roads and Timber Operations - 27.9%
Wood, Pulp and Paper and Related Products - 10.8%
Non-Road Diesel Engines (Forest Estimate) - 6.6%
Non-Road Gas Engines (Forest Estimate) - 1.3%

Current PM/Agriculture Guidance

General Preamble, April 1992
- Compliance with USDA Conservation Provisions

C Best Available Control Measures (BACM) Guidance Documents - September 1992
- Fugitive Dust
- Prescribed Burning

Example BACM Application - Final Report, September 1994
Natural Events Policy - May 1996
AP-42

Emission Inventory/Factor Improvements

Reassessments Ongoing in FY97
- Unpaved/pave roads
- Construction Activities
- Agricultural Tilling
- Wind Erosion
- Major Point Sources
- NH_3 (Animal Husbandry Activities)
- Forest Fires and Prescribed Burning

Modest Resources Available

Many Technical Challenges
Limited Data Available
Data and Resources Needed from other Federal Agencies, States, Academia, and Agribusiness

Issues Needing Resolution

Improve emission factors/estimates for agricultural related activities
Compile information on agricultural burning
- Type of crop burned, activity level - frequency and amount burned, emission factor/estimate

Quantify emission reductions resulting from implementing conservation and best management practices recommended by USDA
Identify and promote conservation and best management practices recommended by USDA to minimize emission impacting air quality
Establish methodologies for assessing compliance
Develop outreach program to market practices

Hambleton mentioned that changes in lung structure were mentioned several times today. Is it possible to have this health-related information compiled and presented during Day 2, or at the next meeting? Are these studies credible and can they be replicated? We also wonder if it is possible that Sally Shaver could be here for all our meetings and not just as a replacement when Mary Nichols cannot be in attendance. There is continuity that will be missed if there is this flip-flop in personnel.

Scherer replied that this could be an issue for discussion in Work Group #1.

Margheim suggested that the Task Force social gathering started at 6:30 p.m. and thus, the group need to shift the Work Group sessions to 8-9 a.m. in the morning.
Dr. Wakelyn disagreed with this approach, indicating that his morning commute was too long to get him here before the scheduled 9:00 a.m. start time.

Scherer suggested that we define the charge to the entire work group and then break-up into 4 groups and assign a charge to each Work Group. He concluded saying that on Day 2 at 9:00 a.m., each Work Group has to have prepared their respective answers and be prepared to present their findings to the Task Force.

Workgroup # 1:

Sally Shaver, Manuel Cunha, Phillip Wakelyn, Calvin Parnell, and Emmett Barker

The research question for Work Group #1 is: How can we best formalize the agreement between USDA and EPA?

Workgroup # 2:

Tom Ferguson, Keith Saxton, Jim Trotter, and Dennis Tristao
Workgroup # 3:

Victor Chavez, John Sweeten, and Phyllis Breeze

Workgroup #4:

Eric Hurley, Jerold Masters, Robert Quinn, and William Hambleton

The charge to Work Groups 2 through 4 was to address the key research issues that the Task Force would need to consider in resolving the agricultural impacts on ambient air quality. Bluhm indicated that there would be time on Day 2 to prioritize the issues.

Barker questioned when the Work Groups were supposed to meet?

Bluhm replied that it is up to the individual Work Group members. They have the opportunity to meet anytime, as long as the information was ready for presentation on Day 2 at 9:00 a.m.

PUBLIC COMMENTS ON PRESENTATIONS

Mike Wade (California Farm Bureau Federation) stated he was an interested member of the public, who was listening in on the meeting today. He commented that although Ms. Shaver indicated that EPA does not reference the NRDC report in their proposals, that in a January 1997 Fact Sheet, numbers from the NRDC Report are quoted. Mr. Wade indicated that these numbers being released through EPA documents does in fact give credence to their scientific voracity. He urged the Task Force to investigate the release of such numerical information, as it related to agriculture.

Gary Baise (Equipment Manufacturers Association, General Counsel) commented that CASAC indicated that 34 of the 36 studies dealt with PM-10 and not PM-2.5. In fact, most studies showed no correlation at all between particles and premature deaths. Additionally, for asthma deaths, a recent EPA report also showed no correlation to outdoor pollution, rather it pointed towards indoor air pollution. With regard to ozone, CASAC says there is no bright line that distinguishes the new standard from current standard in terms of increased health benefits. Additionally, the chamber studies are heavy sustained exercise periods/patterns and are not indicative of normal daily human activities. Likewise, the children's camp studies are also exaggerated. With regard to hospital admissions, the EPA relies on two risk assessments. These documents rely on estimates and predictions, not actual hospital admissions. Finally, EPA states that the background ozone is 40 ppb; however, in other places they say that it is 0.5 to 0.6 ppm in some rural areas. Thus, EPA is contradicting itself. Mr. Baise concluded that it is indoor air quality issues that need to be reviewed, not necessarily agricultural impacts. Thus, he indicated that he had some serious concerns about EPA's good science and why the Agency wanted to regulate agricultural emissions.

Dr. Robert Flocchini (University of California-Davis*)* commented that it was critical that the Task Force understand where the numbers presented in Sally Shaver's pie charts originated from because he has concerns about them.

Dr. Gary Margheim indicated that with no further comment from the floor, the meeting would stand adjourned until 9:00 a.m. tomorrow morning. He encouraged the Task Force members to participate in the social hour and take the opportunity to meet each other and mingle. He reminded the public audience that the individual Work Group meetings would be closed to the public; but, that the summary presentations form the Work Groups tomorrow morning would be open and the public would be given the opportunity to comment at this time.

List of Acronyms

AAQTF	Agricultural Air Quality Task Force
AOV	Area of Violation
ARS	Agricultural Research Service
BACM	Best Available Control Measures
BMPs	Best Management Practices
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CARB	California Air Resources Board
CASAC	Clean Air Scientific Advisory Committee
CRP	Conservation Reserve Program
EPA	Environmental Protection Agency
FACA	Federal Advisory Committee Act
FAIRA	Federal Agricultural Improvement & Reform Act
FRM	Federal Reference Method
GIS	Geographic Information System
IIP	Interim Implementation Plan
LIDAR	Light Detection and Ranging
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NRCS	National Resources Conservation Service
NRDC	National Resources Defense Council
QA/QC	Quality Assurance /Quality Control
OAQPS	Office of Air Quality Planning & Standards
ORD	Office of Research and Development
RAMPs	Regional Air Management Partnership
RIA	Regulatory Impact Analysis
PM	Particulat Matter
SCS	Soil Conservation Service
SIPs	State Implementation Plan
SJV	San Joaquin Valley
SOS	Southern Oxidant Study
SWAPA	Soil, Water, Air, Plants & Animals
TIPs	Tribal Implementation Plan
TNRCC	Texas Natural Conservation Commission
TSP	Total Suspended Particulate
TVA	Tennesse Valley Authority
USDA	United Staes Department of Agriculture
WWW	World Wide Web